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FILE 'MEDLINE, CAPLUS, CANCERLIT, BIOSIS, EMBASE' ENTERED AT 12:49:22 ON
13 MAR 2005
L1      8752 S CELECOXIB
L2      12 S EDOTECARIN
L3      0 S L1 AND L2
L4      3377225 NEOPLASIA OR CARCINOMA OR CANCER
L5      7 S L2 AND L4

=> s l1 and l4
L6      2241 L1 AND L4

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DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, CANCERLIT, BIOSIS, EMBASE'
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L7      1509 DUPLICATE REMOVE L6 (732 DUPLICATES REMOVED)

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FILE 'MEDLINE, CAPLUS, CANCERLIT, BIOSIS, EMBASE' ENTERED AT 12:49:22 ON
13 MAR 2005
L1      8752 S CELECOXIB
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L7      1509 DUPLICATE REMOVE L6 (732 DUPLICATES REMOVED)

=> s l7 and py<=1998
2 FILES SEARCHED...
4 FILES SEARCHED...
L8      17 L7 AND PY<=1998

=> d 1-17 bib abs

L8      ANSWER 1 OF 17      MEDLINE on STN
AN      1999052006      MEDLINE
DN      PubMed ID: 9834941
TI      Cancer chemoprevention. Part 1: Retinoids and carotenoids and
other classic antioxidants.
AU      Singh D K; Lippman S M
CS      Department of Gynecologic Oncology, University of Texas, M. D. Anderson
Cancer Center, Houston, USA.
SO      Oncology (Williston Park, N.Y.), (1998 Nov) 12 (11) 1643-53,
1657-8; discussion 1659-60. Ref: 111
Journal code: 8712059. ISSN: 0890-9091.
CY      United States
DT      Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA      English
FS      Priority Journals
EM      199902
ED      Entered STN: 19990316
Last Updated on STN: 19990316

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Entered Medline: 19990226

AB **Cancer** chemoprevention is the use of specific natural or synthetic substances with the objective of reversing, suppressing, or preventing carcinogenic progression to invasive **cancer**. Currently, numerous chemopreventive agents are in various stages of development and testing. Part 1 of this two-part series provides an overview of issues unique to chemoprevention trials, including the use of surrogate biomarkers as end points. This is followed by a discussion of the retinoids, such as all-trans-retinoic acid (ATRA [Vesanoid]), 9-cis-retinoic acid (9cRA), and isotretinoin (Accutane), and the carotenoids (e.g., beta-carotene and lycopene) and other "classic" antioxidants (e.g., vitamins E and C and selenium). Research on these agents will be delineated by disease site when applicable. Part 2, which will appear in next month's issue, will focus on hormonally mediated chemopreventive agents, such as tamoxifen (Nolvadex), finasteride (Proscar), oral contraceptives, and dehydroepiandrosterone (DHEA). Part 2 also will cover nonantioxidant natural agents, such as calcium, the polyphenols, the isothiocyanates, and genistein; nonsteroidal anti-inflammatory drugs (NSAIDS), such as **celecoxib**, sulindac sulfone, and aspirin; difluoromethylornithine (DFMO [Eflornithine]); oltipraz; and N-acetylcysteine.

L8 ANSWER 2 OF 17 MEDLINE on STN
AN 1998286828 MEDLINE
DN PubMed ID: 9625164
TI **Cancer** and arthritis share underlying processes.
AU Ziegler J
SO Journal of the National Cancer Institute, (1998 Jun 3) 90 (11) 802-3.
Journal code: 7503089. ISSN: 0027-8874.
CY United States
DT News Announcement
LA English
FS Priority Journals
EM 199806
ED Entered STN: 19980625
Last Updated on STN: 20000303
Entered Medline: 19980618

L8 ANSWER 3 OF 17 MEDLINE on STN
AN 1998117285 MEDLINE
DN PubMed ID: 9458081
TI Chemopreventive activity of **celecoxib**, a specific cyclooxygenase-2 inhibitor, against colon carcinogenesis.
AU Kawamori T; Rao C V; Seibert K; Reddy B S
CS Division of Nutritional Carcinogenesis, American Health Foundation, Valhalla, New York 10595, USA.
SO Cancer research, (1998 Feb 1) 58 (3) 409-12.
Journal code: 2984705R. ISSN: 0008-5472.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199802
ED Entered STN: 19980306
Last Updated on STN: 20000303
Entered Medline: 19980224

AB Epidemiological and laboratory studies suggest that nonsteroidal antiinflammatory drugs reduce the risk of colon **cancer** and that the inhibition of colon carcinogenesis is mediated through modulation of prostaglandin production by cyclooxygenase (COX) isozymes (COX-1 and -2). Overexpression of COX-2 has been observed in colon tumors; therefore, specific inhibitors of COX-2 activity could potentially serve as chemopreventive agents. Our recent study indicated that **celecoxib** (SC-58635), a specific COX-2 inhibitor, suppressed colonic aberrant crypt foci formation induced by azoxymethane in rats and led us to investigate more specifically the chemopreventive potential of this compound using colon tumors as end points. Five-week-old male F344 rats were fed the

control diet (modified AIN-76A) or an experimental diet containing 1500 ppm **celecoxib**. Two weeks later, all animals except those in the saline-treated groups received s.c. injections of azoxymethane (15 mg/kg of body weight) once weekly for 2 weeks. All groups were kept on their regimen until the experiment was terminated, 50 weeks after carcinogen treatment. Colon tumors were evaluated histopathologically. Remarkably, dietary administration of **celecoxib** inhibited both incidence and multiplicity of colon tumors by about 93 and 97%, respectively. It also suppressed the overall colon tumor burden by more than 87%. The degree of tumor inhibition was more pronounced with **celecoxib** than it was with previously evaluated nonsteroidal anti-inflammatory drugs. The results of this study provide evidence, for the first time, that a specific COX-2 inhibitor, **celecoxib**, possesses strong chemopreventive activity against colon carcinogenesis.

L8 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1997:330637 CAPLUS

TI Selective cyclooxygenase-2 inhibitors: pharmacology, clinical effects and therapeutic potential

AU Van Ryn, Joanne; Pairet, Michel

CS General Pharmacology, Department of Biological Research, Dr Karl Thomae GmbH, Biberach, 88397, Germany

SO Expert Opinion on Investigational Drugs (1997), 6(5), 609-614

CODEN: EOIDER; ISSN: 0967-8298

PB Ashley Publications

DT Journal

LA English

AB Since the discovery of a second isoenzyme of cyclooxygenase, COX-2, the field of prostaglandin and inflammation research has rapidly developed. It is becoming more evident that inhibition of COX-2 results in the analgesic and anti-inflammatory actions of non-steroidal anti-inflammatory drugs (NSAIDs), and that inhibition of COX-1 results in the adverse side-effects seen with these compds. The mechanisms causing intestinal ulceration and renal toxicity are being elucidated, and large scale clin. trials with a preferential COX-2 inhibitor, meloxicam, and the first clin. results with highly selective COX-2 inhibitors, such as MK966 and **celecoxib**, support a superior benefit to risk ratio. In addition, important new areas where COX-2 expression is elevated, such as colonic **cancer**, have been identified and a role for COX-2 has also been proposed in Alzheimer's disease. Inhibition of COX-2 for these indications by selective COX-2 inhibitors may provide effective new therapies in the future.

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD

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L8 ANSWER 5 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

AN 1999064337 EMBASE

TI The advent of highly selective inhibitors of cyclooxygenase - A review.

AU Cryer B.; Dubois A.

CS Dr. B. Cryer, Dallas VA Medical Center (111B1), 4500 S. Lancaster Road, Dallas, TX 75216, United States. bcryer@mednet.swmed.edu

SO Prostaglandins and Other Lipid Mediators, (1998) 56/5-6 (341-361).

Refs: 102

ISSN: 0090-6980 CODEN: POLMFL

PUI S 0090-6980(98)00064-1

CY United States

DT Journal; General Review

FS 030 Pharmacology

037 Drug Literature Index

LA English

SL English

AB Cyclooxygenase (COX) exists in two isoforms, COX-1 and COX-2. COX-1 is present and is constitutively expressed in most cells and tissues, whereas COX-2 is felt to principally mediate inflammation. However, this distinction appears to be challenged by recent observations. This review addresses the roles of COX-1 and COX-2 isoforms in physiologic and pathophysiologic states and reviews potential therapeutic roles for

.. selective COX inhibitors.

L8 ANSWER 6 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 1999060732 EMBASE
TI Mechanism of action of antiinflammatory drugs.
AU Vane J.R.; Botting R.M.
CS J.R. Vane, William Harvey Research Institute, Royal London Sch. of
Med./Dentistry, Queen Mary and Westfield College, Charterhouse Square,
London EC1M 6BQ, United Kingdom
SO International Journal of Tissue Reactions, (1998) 20/1 (3-15).
Refs: 95
ISSN: 0250-0868 CODEN: IJTEDP
CY Switzerland
DT Journal; General Review
FS 037 Drug Literature Index
038 Adverse Reactions Titles
LA English
SL English
AB In 1971, Vane showed that nonsteroid antiinflammatory drugs (NSAIDs)
inhibited the biosynthesis of prostaglandins and proposed this as their
mechanism of action. Much work around the world has followed. The aspirin-
like drugs inhibit the binding of the prostaglandin substrate, arachidonic
acid, to the active site of the enzyme. After characterization of the
COX-1 enzyme in 1976, a second COX gene was discovered in 1991 encoding
for the inducible COX-2. The constitutive isoform of COX, COX-1, has clear
physiological functions. The inducible isoform, COX-2, is induced by pro-
inflammatory stimuli in migratory cells and inflamed tissues. The range of
activities of NSAIDs against COX-1 compared to COX-2 explains the
variations in the side effects of NSAIDs at their antiinflammatory doses.
Drugs which have the highest potency on COX-2 and less effect on COX-1
will have potent antiinflammatory activity with fewer side effects. All
the results published so far support the hypothesis that the unwanted side
effects of NSAIDs, such as damage to the gastric mucosa and kidneys, are
due to their ability to inhibit COX-1, while their antiinflammatory
(therapeutic effects) are due to inhibition of COX-2. Other roles for
COX-2 inhibitors will surely be found in the next few years, for
prostaglandin formation is under strong control in organs such as the
kidney, lungs and uterus. COX-2 is also potentially expressed in human colon
cancer cells, and NSAIDs delay the progress of colon tumors
possibly by causing apoptosis of the tumor cells. The risk of developing
Alzheimer's disease, which may involve an inflammatory component, is
lessened by chronic ingestion of NSAIDs. The new highly selective
inhibitors of COX-2 will not only provide a means of delaying premature
labor but will also lead to advances in **cancer** therapy and
protection against Alzheimer's disease.

L8 ANSWER 7 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 1998370161 EMBASE
TI [COX 2 inhibitor as drug of many talents?].
COX-2-HEMMER ALS ALLESKONNER?.
AU Wagner U.
SO Pharmazeutische Zeitung, (29 Oct 1998) 143/44 (39-40).
ISSN: 0031-7136 CODEN: PZSED5
CY Germany
DT Journal; Note
FS 002 Physiology
005 General Pathology and Pathological Anatomy
008 Neurology and Neurosurgery
015 Chest Diseases, Thoracic Surgery and Tuberculosis
016 Cancer
026 Immunology, Serology and Transplantation
030 Pharmacology
037 Drug Literature Index
048 Gastroenterology
LA German
SL German

L8 ANSWER 8 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
 on STN
 AN 1998351229 EMBASE
 TI Clinical models of chemoprevention for colon **cancer**.
 AU Krishnan K.; Ruffin IV M.T.; Brenner D.E.
 CS Dr. K. Krishnan, Department of Internal Medicine, Division of
 Hematology/Oncology, East Tennessee State University, Johnson City, TN
 37614-70622, United States
 SO Hematology/Oncology Clinics of North America, (1998) 12/5 (1079-1113).
 Refs: 235
 ISSN: 0889-8588 CODEN: HCNAEQ
 CY United States
 DT Journal; General Review
 FS 016 Cancer
 017 Public Health, Social Medicine and Epidemiology
 030 Pharmacology
 037 Drug Literature Index
 048 Gastroenterology
 LA English
 SL English
 AB Colon **cancer** is a common malignancy in the westernized world and
 is incurable in its advanced stages. This article summarizes the currently
 available information on colorectal **cancer** chemoprevention. A
 brief outline of the incidence and etiologic factors is followed by a
 discussion of the evidence on which chemopreventive strategies for colon
cancer are modeled. This includes a description of the development
 of surrogate endpoint biomarkers and experimental models to study
 colorectal **cancer** chemopreventives, a review of the promising
 colorectal **cancer** chemopreventives, and a discussion of the
 issues to be addressed in the design of future chemoprevention trials. The
 article concludes with an emphasis on the development and validation of
 biomarkers and selection of high-risk cohorts using genetic and
 epidemiologic tools as the main goals of future colon **cancer**
 chemoprevention trials before large-scale, risk-reduction trials are
 conducted.

L8 ANSWER 9 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
 on STN
 AN 1998203476 EMBASE
 TI **Cancer** and arthritis share underlying processes.
 AU Ziegler J.
 SO Journal of the National Cancer Institute, (3 Jun 1998) 90/11 (802-803).
 ISSN: 0027-8874 CODEN: JNCIAM
 CY United Kingdom
 DT Journal; Note
 FS 016 Cancer
 037 Drug Literature Index
 LA English

L8 ANSWER 10 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
 on STN
 AN 1998195193 EMBASE
 TI Building better aspirin: Does aspirin ward off **cancer** and
 Alzheimer's?.
 AU Pennisi E.
 SO Science, (22 May 1998) 280/5367 (1191-1192).
 ISSN: 0036-8075 CODEN: SCIEAS
 CY United States
 DT Journal; Note
 FS 036 Health Policy, Economics and Management
 037 Drug Literature Index
 038 Adverse Reactions Titles
 039 Pharmacy
 LA English
 SL English
 AB New aspirin-like compounds target a single enzyme to deliver pain relief
 without stomach and kidney damage. They may also slow the development of

. **cancer** and Alzheimers's disease.

L8 ANSWER 11 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 1998168912 EMBASE
TI Cyclooxygenases 1 and 2.
AU Vane J.R.; Bakhle Y.S.; Botting R.M.
CS J.R. Vane, William Harvey Research Institute, St Barth./Royal Lon. Sch.
Med./Dent., Queen Mary and Westfield College, Charterhouse Square, London
EC1M 6BQ, United Kingdom
SO Annual Review of Pharmacology and Toxicology, (1998) 38/- (97-120).
Refs: 127
ISSN: 0066-4251 CODEN: ARPTDI
CY United States
DT Journal; General Review
FS 029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LA English
SL English
AB Cyclooxygenase (COX), first purified in 1976 and cloned in 1988, is the
key enzyme in the synthesis of prostaglandins (PGs) from arachidonic acid.
In 1991, several laboratories identified a product from a second gene with
COX activity and called it COX-2. However, COX-2 was inducible, and the
inducing stimuli included pro-inflammatory cytokines and growth factors,
implying a role for COX-2 in both inflammation and control of cell growth.
The two isoforms of COX are almost identical in structure but have
important differences in substrate and inhibitor selectivity and in their
intracellular locations. Protective PGs, which preserve the integrity of
the stomach lining and maintain normal renal function in a compromised
kidney, are synthesized by COX-1. In addition to the induction of COX-2 in
inflammatory lesions, it is present constitutively in the brain and spinal
cord, where it may be involved in nerve transmission, particularly that
for pain and fever. PGs made by COX-2 are also important in ovulation and
in the birth process. The discovery of COX-2 has made possible the design
of drugs that reduce inflammation without removing the protective PGs in
the stomach and kidney made by COX-1. These highly selective COX-2
inhibitors may not only be anti-inflammatory but may also be active in
colon **cancer** and Alzheimer's disease.

L8 ANSWER 12 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 1998155426 EMBASE
TI COX-2 inhibitors for colorectal **cancer**.
AU Elder D.J.E.; Paraskeva C.
CS C. Paraskeva, Dept. of Pathology and Microbiology, University of Bristol,
Bristol BS8 1TD, United Kingdom. C.Paraskeva@bristol.ac.uk
SO Nature Medicine, (1998) 4/4 (392-393).
Refs: 11
ISSN: 1078-8956 CODEN: NAMEFI
CY United States
DT Journal; Note
FS 016 Cancer
037 Drug Literature Index
048 Gastroenterology
LA English

L8 ANSWER 13 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 1998130236 EMBASE
TI Opportunities in pain therapy: Beyond the opioids and NSAIDs.
AU Kowaluk E.A.; Arneric S.P.; Williams M.
CS M. Williams, Neurological Diseases Research, Abbott Laboratories, 100
Abbott Park Road, Abbott Park, IL 60064-3500, United States.
mike.williams@abbott.com
SO Emerging Drugs, (1998) 3/- (1-37).
Refs: 77
ISSN: 1361-9195 CODEN: EMDRFV

CY United Kingdom
DT Journal; General Review
FS 008 Neurology and Neurosurgery
016 Cancer
030 Pharmacology
037 Drug Literature Index

LA English

SL English

AB Pain remains a major factor in patients seeking physician assistance. Neither the NSAIDs (non-steroidal, anti-inflammatory drugs) nor the opioids represent a complete answer to pain control, either alone or in combination. Recent research advances using molecular biological techniques have established that pain is a complex process involving multiple neurotransmitter/neuromodulator targets in the spinal cord, in ascending and descending spinal pathways and in the central nervous system as well as receptors and enzymes that are induced as part of the pain process. These advances, coupled with the considerable unmet medical need in the area of analgesics, are anticipated to lead to novel, non-opioid, non-NSAID approaches to pain relief and control.

L8 ANSWER 14 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN

AN 1998129411 EMBASE

TI Drug currently in phase III trials for arthritis shows tumor-inhibiting potential in colon **cancer** model.

SO ONCOLOGY, (1998) 12/3 (423).

ISSN: 0890-9091 CODEN: OCLGE

CY United States

DT Journal; Note

FS 016 Cancer

037 Drug Literature Index

038 Adverse Reactions Titles

LA English

L8 ANSWER 15 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN

AN 97101463 EMBASE

DN 1997101463

TI Cyclo-oxygenase isoenzymes. How recent findings affect thinking about nonsteroidal anti-inflammatory drugs.

AU Jouzeau J.-Y.; Terlain B.; Abid A.; Nedelec E.; Netter P.

CS Dr. P. Netter, Faculte de Medecine, Laboratoire de Pharmacologie, Boite Postale 184, 54505 Vandoeuvre les Nancy, France

SO Drugs, (1997) 53/4 (563-582).

Refs: 238

ISSN: 0012-6667 CODEN: DRUGAY

CY New Zealand

DT Journal; General Review

FS 029 Clinical Biochemistry

030 Pharmacology

037 Drug Literature Index

038 Adverse Reactions Titles

LA English

SL English

AB The discovery of at least 2 cyclo-oxygenase (COX) isoenzymes, referred to as COX-1 and COX-2, has updated our knowledge of nonsteroidal anti-inflammatory drugs (NSAIDs). This has lead investigators to reconsider what can be awaited from this class of drugs. The 2 COX isoenzymes share structural and enzymatic similarities, but are specifically regulated at the molecular level and may be distinguished apart in their functions, although some physiological overlap between them does occur. The major goal in developing selective COX inhibitors is to improve NSAID tolerability. Classic NSAIDs preferentially inhibit COX-1 in vitro, but it appears hazardous to judge their gastrointestinal (GI) safety profile from these data. New compounds with a high selectivity for COX-2, especially those that are non-acidic, may be better tolerated in the GI tract. While these compounds also might have a potential use in various diseases such as colorectal **cancer** and neurodegenerative

diseases of the Alzheimer type, the possible appearance of adverse effects, perhaps renally-related, must be taken into consideration. Finally, well-designed large clinical trials are required to adequately estimate both the promising therapeutic advantages that may be offered by highly selective NSAIDs, and the potential drawbacks that may be inherent with prolonged COX-2 inhibition.

L8 ANSWER 16 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 97093441 EMBASE
DN 1997093441
TI **Cancer** pain treatment insights.
AU Barkin R.L.
CS R.L. Barkin, 1653 West Congress Parkway, Chicago, IL 60612-3864, United States
SO Pharmacotherapy, (1997) 17/2 (397-398).
Refs: 7
ISSN: 0277-0008 CODEN: PHPYDQ
CY United States
DT Journal; General Review
FS 024 Anesthesiology
030 Pharmacology
037 Drug Literature Index
038 Adverse Reactions Titles
LA English

L8 ANSWER 17 OF 17 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
AN 96310572 EMBASE
DN 1996310572
TI Evaluation of cyclooxygenase-2 inhibitor for potential chemopreventive properties in colon carcinogenesis.
AU Reddy B.S.; Rao C.V.; Seibert K.
CS American Health Foundation, One Dana Road,Valhalla, NY 10595, United States
SO Cancer Research, (1996) 56/20 (4566-4569).
ISSN: 0008-5472 CODEN: CNREA8
CY United States
DT Journal; Article
FS 016 Cancer
037 Drug Literature Index
LA English
SL English

AB Epidemiological and laboratory studies indicate an inverse relationship between the risk of colon **cancer** development and intake of nonsteroidal antiinflammatory agents, including aspirin. One of the mechanisms by which nonsteroidal antiinflammatory agents inhibit colon carcinogenesis is through the inhibition of prostaglandin production by cyclooxygenase isozymes (COX-1 and COX-2). Overexpression of COX-2 has been observed in colon tumors. Thus, selective inhibitors of COX-2 could potentially serve as chemopreventive agents. We have assessed the chemopreventive properties of SC-58635, a COX-2 inhibitor, and of sulindac, as a positive control, in a double-blind study, using azoxymethane-induced colonic aberrant crypt foci (ACF) as a measure of efficacy. Five-week-old male F344 rats were fed the control diet (modified AIN-76A) or experimental diets containing 150 or 1500 ppm SC-58635, 320 ppm sulindac, or 1500 ppm placebo. Two weeks later, all animals except those in vehicle (normal saline)-treated groups were s.c. injected with azoxymethane (15 mg/kg of body weight, once weekly for 2 weeks). At 16 weeks of age, all rats were sacrificed and colons were evaluated for ACF. As expected, dietary administration of sulindac suppressed ACF development as such and reduced crypt multiplicity in terms of number of aberrant crypts/focus. Administration of 1500 ppm SC-58635 inhibited total ACF induction and crypt multiplicity by about 40-49%. Our finding that SC-58635 significantly suppressed colonic ACF formation and crypt multiplicity strengthens the hypothesis that a selective COX-2 inhibitor possesses chemopreventive activity against colon carcinogenesis.